	Application No.	Applicant(s)
Notice of Allowability	10/602,997	CHENG, YI
	Examiner	Art Unit
	Tuan T. Lam	2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed 6/16/2005*.

2. ☒ The allowed claim(s) is/are *1-3,5,6,8,10-20,22-32,34-44,46-56,58-68,70,71,73-80,82-92,94-104,106-118,120-126,128-134 and 136-140*.

3. ☒ The drawings filed on *23 June 2003* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 7/29/05

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____

TUAN T. LAM
PRIMARY EXAMINER

1.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

attorney Michael D. Wiggins (Reg. No. 34,754) on 7/29/2005.

The following changes have been made to the subject application.

Claim 20:

Line 11, "operable to program" has been changed to --operable to selectively program--;

Line 12, after "output signal", --in response to a second programmable control signal--

has been inserted.

Claim 30:

Line 11, after "output signal", --in response to a second programmable control signal"

has been inserted.

Claim 32:

Line 10, "for programming" has been changed to --selectively programming--;

Line 11, after "output signal", --in response to a second programmable control signal"

has been inserted.

Claim 34:

Line 4, before "setting", --selectively-- has been inserted.

Line 10, before "setting" --selectively-- has been inserted.

Claim 42:

Line 4, before "setting", --selectively-- has been inserted;

Line 11, after "output signal", --in response to a second programmable control information-- has been inserted.

Claim 44:

Line 3, before "setting", --selectively-- has been inserted;

Line 9, before "programming", --selectively-- has been inserted;

Line 10, after "output signal", --in response to a second programmable control information-- has been inserted.

Claim 54:

Line 16, after "output signal", --in response to a third programmable control signal-- has been inserted.

Claim 56:

Line 16, after "output signal", --in response to a third programmable control signal-- has been inserted.

Claim 66:

Line 15, after "output signal", --in response to a third programmable control signal-- has been inserted.

Claim 68:

Line 14, before "programming", --selectively-- has been inserted;

Line 15, after "output signal", --in response to a third programmable control signal-- has been inserted.

Claim 70:

Line 3, before "providing" , --selectively-- has been inserted;

Line 10, before "providing" , --selectively-- has been inserted.

Claim 73:

Line 3, before "providing" , --selectively-- has been inserted;

Line 10, before "providing" , --selectively-- has been inserted.

Claim 78:

Line 3, before "providing" , --selectively-- has been inserted;

Line 10, before "providing" , --selectively-- has been inserted;

Line 15, after "output signal", --in response to a third programmable control signal-- has been inserted.

Claim 80:

Line 3, before "providing" , --selectively-- has been inserted;

Line 10, before "providing" , --selectively-- has been inserted;

Line 14, before "programming", --selectively-- has been inserted;

Line 15, after "output signal", --in response to a third programmable control signal-- has been inserted.

Claim 117:

Line 2, before "generates", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 3, before "generates", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted.

Claim 118:

Line 2, before "generates", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 3, before "generates", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted;

Line 14, after "output circuit", --in response to a third programmable control signal--.

Claim 120:

Line 3, before "generates", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 4, before "generates", --selectively-- has been inserted; after "adjustment", --in response to a second programmable control signal" has been inserted;

Line 8, before "generates", --selectively-- has been inserted; after "delay", --in response to a third programmable control signal" has been inserted.

Claim 121:

Line 2, before "generates", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 3, before "generates", --selectively-- has been inserted; after "adjustment", --in response to a second programmable control signal" has been inserted.

Claim 122:

Line 3, before "generates", --selectively-- has been inserted; after "delay", --in response to a first programmable control signal" has been inserted;

Line 4, before "generates", --selectively-- has been inserted; after "adjustment", --in response to a second programmable control signal" has been inserted;

Line 8, before "generates", --selectively-- has been inserted; after "offset", --in response to a third programmable control signal" has been inserted.

Claim 123:

Line 2, before "generates", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 3, before "generates", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted.

Claim 124:

Line 2, before "generates", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 3, before "generates", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted;

Line 7, before "generates", --selectively-- has been inserted;

Line 8, after "adjustment", --in response to a third programmable control signal" has been inserted.

Claim 125:

Line 2, before "generating", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 3, before "generating", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted.

Claim 126:

Line 2, before "generating", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 3, before "generating", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted;

Line 14, before "generates", --selectively-- has been inserted; after "adjustment", --in response to a third programmable control signal" has been inserted.

Claim 128:

Line 3, before "generating", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 4, before "generating", --selectively-- has been inserted; after "adjustment", --in response to a second programmable control signal" has been inserted;

Line 8, before "generating", --selectively-- has been inserted; after "delay", --in response to a third programmable control signal" has been inserted.

Claim 129:

Line 2, before "generating", --selectively-- has been inserted; after "delay", --in response to a first programmable control signal" has been inserted;

Line 3, before "generating", --selectively-- has been inserted; after "adjustment", --in response to a second programmable control signal" has been inserted.

Claim 130:

Line 3, before "generating", --selectively-- has been inserted; after "delay", --in response to a first programmable control signal" has been inserted;

Line 4, before "generating", --selectively-- has been inserted; after "adjustment", --in response to a second programmable control signal" has been inserted;

Line 8, before "generating", --selectively-- has been inserted; after "offset", --in response to a third programmable control signal" has been inserted.

Claim 131:

Line 2, before "generating", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 3, before "generating", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted.

Claim 132:

Line 2, before "generating", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 3, before "generating", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted;

Line 8, before "generating", --selectively-- has been inserted;

Line 9, after "adjustment", --in response to a third programmable control signal" has been inserted.

Claim 133:

Line 2, before "generating", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 3, before "generating", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted.

Claim 134:

Line 3, before "generating", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 4, before "generating", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted;

Line 12, before "adjusting", --selectively--, after "loading", --in response to a third programmable control signal-- has been inserted.

Claim 136:

Line 3, before "setting", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 4, before "setting", --selectively-- has been inserted; after "adjustment", --in response to a second programmable control signal" has been inserted;

Line 8, before "setting", --selectively-- has been inserted; after "delay", --in response to a third programmable control signal" has been inserted.

Claim 137:

Line 2, before "setting", --selectively-- has been inserted; after "delay", --in response to a first programmable control signal" has been inserted;

Line 4, before "setting", --selectively-- has been inserted; after "adjustment", --in response to a second programmable control signal" has been inserted.

Claim 138:

Line 3, before "setting", --selectively-- has been inserted; after "delay", --in response to a first programmable control signal" has been inserted;

Line 4, before "setting", --selectively-- has been inserted; after "adjustment", --in response to a second programmable control signal" has been inserted;

Line 8, before "setting", --selectively-- has been inserted; after "offset", --in response to a third programmable control signal" has been inserted.

Claim 139:

Line 2, before "setting", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 4, before "setting", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted.

Claim 140:

Line 3, before "setting", --selectively-- has been inserted; after "offset", --in response to a first programmable control signal" has been inserted;

Line 4, before "setting", --selectively-- has been inserted; after "delay", --in response to a second programmable control signal" has been inserted;

Line 8, before "setting", --selectively-- has been inserted; after "adjustment", --in response to a third programmable control signal" has been inserted.

The Examiner's amendment have been made in order to clarify the hysteresis offset, hysteresis delay and the output load adjustment are selectively programmed by control signals and to place the application in a condition for allowance.

2.   The following is an examiner's statement of reasons for allowance: the amendment filed 6/16/2005 and the telephonic interviewed on 7/29/2005 have overcome the technical deficiencies and the prior art of record. The prior art of record fails to teach or fairly suggest a combination of
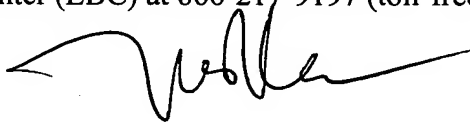
first current source and a resistor to generate a hysteresis offset, third transistor and a capacitor as

called for in claim 1, hysteresis delay and hysteresis offset are independent of the digital output

signal as called for in claims 10, 22, 34, 46, 58, 70, 73, 117, 120, 122, 125, 128, 130, 133 and

139 the hysteresis offset is independent of the digital output signal as called for in claims 18, 20,

30, 32, 82, 94, 106, 123, 131 and 138 the second programmable circuit further includes a

plurality of selectable current sources as called for in claims 19, 31 and 43, selectively providing

control to the digital output signal in response to a third programmable control signal as called

for in claims 42, 44, 54, 56, 66, 68, 78, 80, 118, 124, 126, 132, 134 and 136, the hysteresis delay

is independent of the digital output signal as called for in claims 83, 95, 107, 121, 129, 137 and

140. Therefore, claims 1-3, 5-6, 8, 10-20, 22-32, 34-44, 46-56, 58-68, 70-71, 73-80, 82-92, 94-

104, 106-118, 120-126, 128-134 and 136-140 are presently allowed.

3.   Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tuan T. Lam whose telephone number is 571-272-1744. The

examiner can normally be reached on Monday to Friday (7:30 am to 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, TIMOTHY P. CALLAHAN can be reached on 571-272-1740. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan T. Lam
Primary Examiner
Art Unit 2816

7/30/2005